

U. FIBROSA: FIG. 4, specialized vegetative branch.

U. GEMINISCAPA: FIG. 5 a, a leaf; FIG. 5 b, a cleistogamous fruit (split open by pressure); FIG. 16, winter bud.

U. VULGARIS: FIG. 6, a leaf, showing only the base of one half; FIG. 12 a, winter bud; FIG. 12 b, foliar modification from winter bud, $\times 5$.

U. INFLATA: FIG. 7, a leaf.

U. INFLATA, var. MINOR: FIG. 8, a leaf.

U. MINOR: FIGS. 9 a & b, portions of stems from two plants showing two common forms of 3-parted leaves; FIG. 9 c, portion of stem bearing two 3-parted leaves of the less frequent, short, broad and bladderless form, especially of vernal growth from winter buds or of nearly terrestrial plants; FIG. 15, winter bud, with the usually somewhat incurved subtending leaves.

U. INTERMEDIA: FIG. 10 a, portion of stem bearing the 3-parted leaves; FIG. 10 b, apex of a terminal foliar division, $\times 5$; FIG. 10 c, specialized bladder-bearing branch; FIG. 13, winter bud; FIG. 13 b, foliar modification from winter bud, $\times 5$.

U. OCHROLEUCA: FIG. 11 a, portion of stem bearing leaves; FIG. 11 b, apex of a terminal foliar division, $\times 5$; FIG. 11 c, bladder-bearing branch.

All figures natural size unless otherwise indicated.

SOME RECENT ADDITIONS TO THE FLORA OF BERKSHIRE COUNTY, MASSACHUSETTS

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In spite of the thirty years of exploration and research that is back of Hoffman's admirable *Flora of Berkshire County*,¹ a census of the flowering plants occurring at the Pleasant Valley Bird and Wild Flower Sanctuary in Lenox during the spring and summer of 1938 disclosed additional species that seem well worth recording. But for two interesting exceptions, these new species, as might be expected, consist of exotics, presumably introduced since the publication of Hoffman's work. Mention should also be made of several other plants which, though known in the region before, have changed their status markedly in the last decade or two.

Census work was confined to the Sanctuary grounds, a 306-acre tract of land comprising old meadows, marshes, alder swamps, and the deep cool woods of a mountainside. The whole area ranges in elevation from 1200 feet in the valley of the included trout stream to 1800 feet at the summit of Lenox Mountain. To the wealth of plant species naturally occurring in such a diversity of habitat may be added many deliberate as well as accidental introductions—bog species in the artificial bog, woodland plants in the Fernery, berry-producing shrubs planted to encourage birds, and a great number of unforeseen

¹ Hoffman, Ralph, *Flora of Berkshire County, Massachusetts*. Proc. Boston Soc. Nat. Hist. Vol. 36, No. 5, 1922, pp. 171-382.

associates that seem to spring up whenever transplantations are made. Offsetting these advantages, as far as the number of species listed is concerned, are the facts that the area involved is essentially a plateau lacking the virtually hundreds of plants indigenous in the lower river valleys; that the area has not been under cultivation for many years, thus eliminating many weed species; and that the census work was confined to a single season (by a single person with many other duties), so that many difficult groups, such as grasses and sedges, were only partially worked out.

A total of 525 species of Spermatophytes were listed for the season. Additional varieties of course occur, but are not included in this number. The following are believed to be either new for the county, or else to exhibit a marked extension of the range formerly accorded them.

SERAPIAS HELLEBORINE L. Though not strictly a recent addition to the local flora, the present widespread distribution of this formerly rare orchid merits its inclusion here. The small colony originally discovered in Stockbridge in 1898 by Miss Caroline Wells was destroyed at an early date and the plant remained unknown in Western Massachusetts until rediscovered in 1931 by nature teachers at Camp Sumner. Since then the lost orchid has come into prominence and its occurrence has been noted in quite a number of localities. It seems thoroughly at home in the woods at the Sanctuary, several dozen widely scattered specimens having been found during the summer of 1938. There is no record of its deliberate introduction by planting. Considering its European origin it is perhaps not surprising to see this introduced form spreading more rapidly than our native species.

PIMPINELLA SAXIFRAGA L. There appears to be no previous record of the occurrence of this species in Berkshire County, although from the range accorded it in Gray's Manual there is no particular reason why it should not be found. From late July until mid-September scattered specimens of this European parsley appeared in bloom, appropriately enough, on the Sanctuary's Nature Trail, in an open portion planted several years ago to young spruces, and thus possibly explaining the source of seed. It extended over several square rods of territory, a delicately pretty, but not very conspicuous plant, its superficial similarity to several other white parsleys perhaps preventing its earlier detection both here and elsewhere.

MONARDA FISTULOSA L. It is a little surprising to find in connection with this species that Hoffman mentions only the variety *rubra*, found near a dwelling in Lanesboro. At the Sanctuary the type, not the variety, is among the most common and conspicuous of our late summer wild flowers, blooming for nearly two months. Its identifi-

cation is perhaps more frequently the subject of inquiry than any other plant on the grounds, this fact among others suggesting that it may have been introduced recently. Though native to this country, its presence in the Berkshires must have some other explanation. It grows abundantly in old fields, thickets, along the roadside, and the margins of the Sanctuary Pond, in either moist or dry soil.

VERONICA CHAMAEDRYIS L. This species, originally naturalized from Europe in a few places, has likewise probably recently invaded the Berkshires, the first specimens noted appearing on the edge of the Sanctuary lawn in May 1938. Verbal reports of its occurrence in other near-by areas have come to my attention, but only the specimens at the Sanctuary have been personally verified. A similar species, *Veronica Tournefortii* C. C. Gmel., listed by Hoffman for Lanesboro and Pittsfield, also appeared here, in 1937, as a weed in a rock garden; but it did not reappear the following year until November when a luxuriant clump bravely bloomed just in advance of a heavy snow-storm. It still retained some of its petals when the snows disappeared during a December thaw.

PLANTAGO VIRGINICA L. The unexpected occurrence of this species, known heretofore, in New England, only from a few coastal regions, has been reported in a previous number of this journal.¹ About a dozen specimens were located along a sandy portion of the shores of the Sanctuary Pond.

HELIANTHUS GROSSESERRATUS Martens. Perhaps the most interesting of the new species found at the Sanctuary in 1938 is this native sunflower, apparently not previously reported for this county, although it is well within the range of the species. Some two dozen or more specimens were found growing among the tall goldenrods of a waste acre or two, the sunflowers, for the most part, towering above the tallest of the associated weeds.

HIERACIUM FLORENTINUM All. It may be of interest to mention the local spread of this European Hawkweed. Recorded in Gray's Manual as naturalized from eastern Quebec to Northern New York, and mentioned by Hoffman as adventive in Egremont, Massachusetts, it now appears to be a frequent field and roadside weed. A nearly identical species, *Hieracium floribundum* Wimm. & Grab., not listed by Hoffman, is also believed to occur, but unfortunately its specific distinctness was not satisfactorily verified at the time it was noted.

PLEASANT VALLEY BIRD AND WILD LIFE SANCTUARY,
Lenox, Massachusetts

¹ RHODORA 40: 424, 1938.